PROGRAM YEAR | 2018

WORKFORCE INFORMATION GRANT ANNUAL PERFORMANCE REPORT

A SUMMARY OF NEW PRODUCTS, SERVICES, AND PARTNERSHIPS FORMED DURING THE PROGRAM YEAR

Maryland
DEPARTMENT OF LABOR

Introduction

The U.S. Department of Labor, Employment and Training Administration (ETA) funds annual grants to the states to analyze, develop, and distribute essential state and sub-state labor market information (LMI) for job seekers, employers, economic developers, and others.

Maryland receives ETA funds by means of the Workforce Information Grant (WIG) and the Workforce Innovation and Opportunity Act (WIOA). The WIG is managed by the Office of Workforce Information and Performance (OWIP), Division of Workforce Development and Adult Learning of the Maryland Department of Labor (MD Labor). OWIP is essential for the collection, analysis, dissemination, and interpretation of labor market data for Maryland, its counties, select cities, zip codes, and other smaller areas.

The Labor Market Information (LMI) team within OWIP serves the primary function of providing workforce and economic data and analyses. With LMI, users can make informed decisions on matters ranging from personal choices to decisions involving workforce or economic policy.

This report provides an overview of the work conducted with Maryland's WIG during the 2018 program year (July 1, 2018, through June 30, 2019). Maryland expends WIG funds during the program year to upgrade and maintain traditional labor market products, as well as introduce new products and services to assist our stakeholders. These funds were used to accomplish the core deliverables and activities, which include the dissemination of crucial labor market products and responding to requests for LMI. OWIP's mission is to collect, analyze, and produce labor market and workforce information as a service to businesses, job seekers, students, workforce and economic development programs and their community of service providers in Maryland. OWIP follows the following guiding principles to meet its clients' needs:

▸ Partner with the workforce and economic development community,
▸ Develop and deploy new information solution tools and systems for the workforce and economic development community,
▸ Provide products and services that are client and demand-driven, and,
▸ Be recognized as an essential and reliable source for information solutions that support economic workforce development goals and outcomes.

Workforce Information Database (WID)

MD Labor is currently operating with version 2.7 of the Workforce Information Database (WID) per the guidelines issued by the Analyst Resource Center (ARC). Maryland uses the Geographic Solutions-developed Virtual One-Stop (VOS) to create, store, and upload LMI to the WID.

The WID is a defining component of labor market information. Its structure defines what LMI is and how it is to be used. The WID enables web and other applications to be developed around a standard. This standard provides a common LMI data model which applications can use. Geographic Solutions and its VOS benefit from this common data model, rendering sharing between states a more seamless experience. With a common platform like the WID, if a problem arises, experts are available across states that others can turn to when new requirements become law or staff turnover requires swift onboarding. The WID serves as a foundation for economic data delivery and research information. Data uploaded to the WID resides on the MWE.

To ensure the WID is up-to-date and all ARC-designated core tables populate with all relevant data, Geographic Solutions, and OWIP staff practice the following measures to ensure data is uploaded to the WID in a timely manner:

▸ Local Area Unemployment Statistics (LAUS) files are uploaded monthly, which include statewide and residential labor force, employment, and unemployment statistics.
▸ Industry data, Current Employment Statistics (CES) is uploaded monthly, the Quarterly Census of Employment & Wages (QCEW) is updated quarterly.
▸ Occupational data, the Occupational Employment Statistics (OES) program, is uploaded annually.
▸ As per the Training and Employment Guidance Letter 20-17 (TEGL 20-17), the WID is updated annually with the latest short-term (two-year) industry and occupational projections, as well as biennially with long-term (10-year) industry and occupational projections for Maryland's local workforce development areas (LWDAs).
▸ The Integrated Postsecondary Education Data System (IPEDS) is updated annually. This data system forms the institutional sampling for other National Center for Education Statistics (NCES) surveys and provides the primary data needed to describe and analyze trends in postsecondary education in Maryland. IPEDS data includes the number of students enrolled, staff employed, dollars expended, and degrees earned.

Industry & Occupational Projections

In accordance with TEGL 20-17, Maryland produced its short-term industry and occupational employment projections for the 2018 -2020 projection years. Likewise, Maryland finalized the long-term industry and occupational employment projections for its LWDAs, covering the 2016 – 2026 projection years.

Maryland used the methodology, software, and guidelines specified by the Projections Managing Partnership (PMP) to produce all projections. Furthermore, Maryland provided staffing patterns for LWDAs through the use of the Local Employment and Wages Information System (LEWIS).

Introduced in program year (PY) 2017 and now implemented for the first time in PY 2018, long-term projections for Maryland's LWDAs now supports the "separations methodology." The separations methodology supplants the replacement methodology of years past. Both methods provide an estimate of workers who leave their occupation due to retirement or death. Separations allow for an evolving workforce that may leave their profession due to a career change, a promotion, or as a result of finishing a training program.

Maryland Short-Term Industry & Occupational Projections, 2018 - 2020					
	Employment		Jobs Gained		Annual Growth
	2018	2020	Numeric	Percent	Rate
All Industries & Occupations	3,027,113	3,110,400	83,287	2.8%	1.4%

Local Workforce Development Area Long-Term Industry Projections 2016 - 2026					
Area	Employment		Jobs Gained		Annual Growth
	2016	2026	Numeric	Percent	Rate
Anne Arundel	281,398	297,303	15,901	5.7%	0.6%
Baltimore County	399,563	428,960	29,397	7.4%	0.7%
Mid-Maryland	247,585	276,102	28,517	11.5%	1.2%
Montgomery	466,922	494,023	27,101	5.8%	0.6%
Western Maryland	113,437	122,395	8,958	7.9%	0.8%

| Local Workforce Development Area Long-Term Occupational Projections 2016 - 2026					
Area	Employment		Jobs Gained		Separations
	2016	2026	Numeric	Percent	Exits	Transfers
Baltimore City	355,313	365,820	10,507	3.0%	157,131	206,938
Frederick	106,349	120,946	14,597	13.7%	53,061	71,252
Prince George's	321,217	347,575	26,358	8.2%	154,084	208,098
Southern Maryland	117,751	137,494	19,743	16.8%	57,322	76,054
Upper Shore	66,839	71,124	4,285	6.4%	33,622	44,516

Annual Economic Analysis & Other Reports

MD Labor's OWIP produces an economic analysis report covering Maryland and its sub-state areas. While this annual report is an ETA requirement, it's a vital resource for personnel within the MD Labor and outside the agency. OWIP produces supplementary reports and data infographics that enable job seekers, employers, American Job Center (AJC) staff, researchers, and policymakers to make informed decisions about work-based training, learning, and career strategies that can lead to career advancement or discovery. Every produced report and publication is accessible on the MWE publications page. Below are examples of some of OWIP's reports and publications along with links to each report.

2018 Economic Analysis Report
A required submission to ETA, the Economic Analysis Report is a detailed analysis of Maryland's economy, market trends, and challenges at the state, county, and workforce development levels.
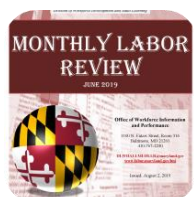
Monthly Labor Review
A monthly publication located on the MD Labor and MWE websites. The Monthly Labor Review provides the state's employment situation for Maryland, its counties, select cities, and metropolitan statistical areas.

Workforce Dashboard
The workforce dashboard is an interactive tool that creates a graphical representation of unemployment insurance, educational and training, job seeker, and job openings data. Explore the data for Maryland, its counties, and LWDAs.

Labor Market Information Cheat Sheet
Everything LMI in one document. It provides descriptions and uses of the most sought-after information. The cheat sheet offers links to websites and indicates where to find more LMI information.

Program Information Sheet
A graphical explanation of OWIP's five major programs: CES, LAUS, QCEW, OES, and projections. Revisions and updates release annually with plans in PY 2019 to create an infographic report.

Customer Consultations

One of the goals of the Workforce Innovation and Opportunity Act (WIOA), the MD Labor, and OWIP is meeting the needs of its end users. OWIP consulted with and incorporated input from its WIOA partners and stakeholders, end users, and senior leadership. To ensure the needs of customers are met, OWIP collects information regarding services provided to customers, who they are, and their outcomes.

Period	Number of Requests	Percentage of Total	Internal	External
July 2018	26	13%	12	14
August	18	9%	9	9
September	15	8%	10	5
October	21	11%	14	7
November	16	8%	8	8
December	9	5%	6	3
January 2019	23	12%	12	11
February	11	6%	5	6
March	16	8%	7	9
April	12	6%	7	5
May	13	7%	7	6
June	14	7%	10	4
Total	**194**	**100%**	**107**	**87**
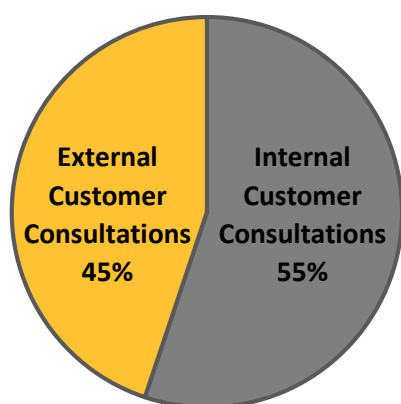
OWIP served 194 customers through data consultations during PY 2018. Most requests come via email, but a few originate from telephone calls or in-person visits to OWIP. Similarly to PY 2017, the top five months for customer consultations were July 2018 (13%), January 2019 (12%), October 2018 (11%), August 2018 (9%), and tied for the fifth spot were November 2018 and March 2019 (8%). The average number of consultations per month was 16, and more were internal (55%) than external (45%).

Internal consultations come from within MD Labor. Several of them come from MD Labor's communications office. When media organizations contact the communications office with questions related to the labor market, LMI staff draft an appropriate response for Communications staff. OWIP also supplies LMI to MD Labor executive staff for speeches, to its grants office to strengthen their proposals, and to other departments throughout the agency in support of their mandates.

External consultations are requests from any entity outside the MD Labor. Many are from outside agencies requesting LMI for their work. Other external consultations include researchers seeking LMI, private practitioners evaluating business decisions, and workforce development organizations looking to improve their services. Private or non-profit firms may have questions about our data, need more historical labor market data, or require guidance on the different types of LMI available.

Activities Undertaken to Meet Customer Needs

It is important for OWIP to consult with its end users to document which products and services were used in customer consultations. OWIP will act, or develop a plan, based on the information gathered through these consultations.

Stakeholder Survey

To address possible improvements, OWIP conducted a stakeholder survey in an effort to learn how the office can better provide assistance and resources more effectively.

How Often Do Stakeholders Visit the Website?
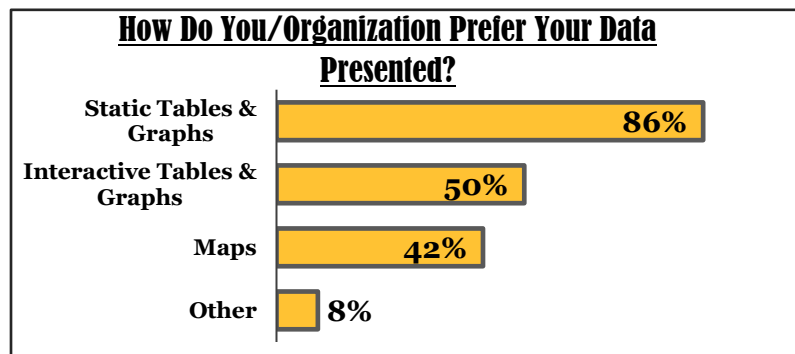

Never 6%
Daily 8%
Annually 8%
Weekly 33%
Monthly 44%
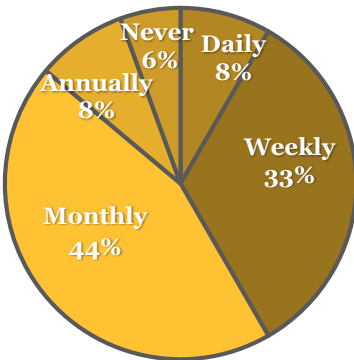
Most respondents from the stakeholder survey visited the OWIP website monthly (44%), then weekly (33%), an equal share of daily and annually (8%), while 6 percent never visited the website.

To meet stakeholder's needs, OWIP ensures all monthly data is updated promptly. Typically, monthly data update within a few hours after publication by the Bureau of Labor Statistics (BLS).

Of the data products available on the OWIP website, most respondents (86%) used LAUS data. The second most popular product was "the employment situation" (69%), followed by the MWE website (66%), the OES (63%) program, with the Monthly Labor Review publication and CES tied with a 60 percent usage for respondents.

The most popular products are monthly releases. OWIP ensures these products are updated on our published schedules, to stay in line with stakeholder expectations.

How Do You/Organization Prefer Your Data Presented?

Static Tables & Graphs 86%
Interactive Tables & Graphs 50%
Maps 42%
Other 8%

For data presentation, most respondents prefer static tables & graphs (86%). While half favor interactive charts and graphs; 42 percent prefer maps, and 8 percent choose "other" as a preference for data presentation. For the "other" category,

customizable tables and infographic publications were the preferred method of presentation.

Survey respondents typically find what they are looking for; 91 percent indicated agreement with this statement. Most found that the web content exceeds their expectations. Website design and ease of navigation could be improved with 40 percent reporting that their expectations were met.

The last group of survey questions addressed recent stakeholder experience using OWIP's website. When asked how likely they were to use the website again, most stakeholders responded, "definitely will" (80%), many others responded "probably will" (17%). The rest (3%) were "not sure." Stakeholders responded they "definitely will" (60%) recommend the website to a friend or colleague. Thirty-one percent, "probably will" recommend the site, and 9 percent was "not sure." On the question of overall satisfaction, nearly two thirds were "very satisfied" (65%), while about a fifth reported being "somewhat satisfied" (21%). Fifteen percent of respondents reported being "extremely satisfied."

Customer Website Statistics

For each annual performance report, OWIP staff analyzes LMI website statistics to determine the data products with the most traction and determine what products could be improved, retired or combined.

Web Metrics: Landing Page Visits; PY 2018
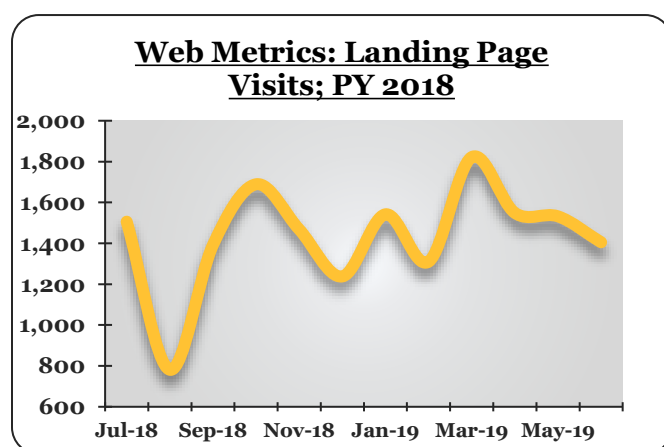
In PY 2018, end users accessed MD Labor's LMI landing page over 17,000 times, up 21 percent from PY 2017. From the chart, March 2019 had the most at 1,822 visitors, while August 2018 had the fewest visitors at 781. The OWIP landing page averaged 1,436 visitors in PY 2018.

Of the five major data products OWIP produces, the OES program averaged the most at almost 1,900 visitors per month. The QCEW program followed the OES program. March was the highest month for customers utilizing all five data products, averaging 1,438 visitors that month.

The most popular publication or data tool for end users was the workforce dashboard, averaging 1,234 visitors. This dashboard is an interactive tool designed to give a visual representation related to the supply and demand of Maryland's workforce, education, and training opportunities.

Following the workforce dashboard is Maryland's major employer list. Provided by OWIP's partnership with Infogroup and their proprietary databases, the major

employers list grants end users access to employment data for Maryland's larger employers.

The MWE is not only a job bank for employers and job seekers; it also houses Maryland's LMI. The LMI section of the MWE averaged over 10,700 monthly visitors in PY 2018. The month with the most visitors was in June 2019 at over 26,000, and July 2018 was the month with the fewest (3,846).

To view more survey results and website statistics, please see the appendix section.

New Tools & Resources

MD Labor's OWIP strives to find new and inventive ways to illustrate LMI to its end users.

During PY 2018, OWIP began researching how to implement the program language python to create faster, more efficient workflows. The following projects have either begun implementation or are in the planning stages using the python programing language:

- ▸ MD Labor's employer database (21c) uses python to aggregate the employment, industry, and wages data, creating QCEW data.
- ▸ OWIP is developing new methodologies to determine the most promising occupations. Occupations selected as the most promising will be included in the latest Hot Jobs publication. Python is used to calculate the final list of occupations.
- ▸ For the first time in PY 2018, Python was used in Maryland's employment projections. Python assisted in incorporating different economic variables (price, population, GDP, etc.) into the projection calculation.
- ▸ OWIP uses Python for arranging and cleaning large databases like the Public Use Microdata Sample (PUMS) from the U.S. Census Bureau.
- ▸ Python is used in the creation of data tables and reports for internal and external use.

Through the partnership with the Jacob France Institute at the University of Baltimore, the Maryland County Fact Sheets introduced in PY 2015 are in the planning stages of an overhaul. The plan is to create a dashboard that leverages other data sources (separations, temporary assistance for needy families, Registered Apprenticeship, etc.) not currently found on the OWIP website. The idea is to leverage more data, not just the traditional LMI currently on OWIP's website.

For implementation in PY 2019, OWIP is redesigning the LMI landing page of the MWE. Through the partnership with Geographic Solutions, the goal of the redesign is to give a more modern look to the landing page, to have a cleaner look, and to incorporate easy to read data widgets.

License Requirement(s) Updates

Maryland populates the required databases with occupational licenses, as outlined in TEGL 20-17. The license information is obtained from MD Labor's Division of Occupational and Professional Licensing. The license information is subsequently uploaded to the submission portal on the ARC website. For PY 2018, Maryland is gathering the latest occupational licensing information for upload in PY 2019. Maryland's occupational licenses are available through the Federal Department of Labor's Career Onestop License Finder.

Efforts to Create and Support Partnerships and Collaborations

MD Labor's OWIP strives to cultivate and maintain partnerships and collaborations with its local partners, economic development authorities, workforce development boards, executive staff, and many others.

OWIP's LMI Director is a member of several key national LMI partnerships. The Director serves on the Board of Directors of the PMP and chair of their training committee. Additionally, the LMI Director is a member of the National Association of State Workforce Agencies (NASWA) LMI committee.

OWIP staff was invited to attend the Governor's Workforce Development Board's (GWDB) quarterly meeting. LMI staff participated in a panel discussion covering the review process for the WIOA local and regional reports submitted by local workforce development staff.

Maryland formed partnerships with other states through the National Governors Association's Inter-State Collaborative Consortium. The goal is to gain a better understanding of the national and Maryland's on-demand economy, provide leadership, support, and gauge the impact this emerging industry has on Maryland's workforce.

MD Labor's Chief Economist is a member of several collaborative boards which requires him to attend meetings throughout the year. These associations include the Maryland Economic Development Commission, Maryland Economic Development Association, Department of Commerce Subcabinet, and NASWA.

OWIP collaborated with several state agencies to better understand the impact the opioid crisis is having on Maryland's residents. OWIP provided statistics on the types of opioid occurrences by demographics, fatal and non-fatal, also stats on hospitals stays were provided. Maryland was awarded an almost $2 million grant that will go toward ensuring local jurisdictions across the state are equipped to take on this epidemic.

The following agencies are partners through data-sharing agreements. Under a memorandum of understanding (MOU), our partners are allowed to receive data that are more sensitive. These agencies use this data internally or publish the information as an aggregation.

▸ Maryland's Non-profit Consortium
▸ Jacob France Institute at the University of Baltimore
▸ Center for Smart Growth at the University of Maryland (Maryland Department of Transportation)
▸ Maryland National Capital Park and Planning Commission
▸ Frederick County Department of Finance
▸ Maryland Department of Planning
▸ Maryland Department of Commerce

▸ Montgomery County Economic Development Office
▸ Montgomery County Parks and Planning Office
▸ Maryland National Capital Park and Planning Commission – Prince George's County
▸ Maryland National Capital Park and Planning Commission – Montgomery County
▸ U.S. Census Bureau – Longitudinal Employer Household Dynamics Program

Activities to Leverage LMI-WI Funding

Throughout the program year, OWIP applied ETA funding to projects and data products to enhance workflows, enrich existing partnerships, and to foster new LMI users.

▸ WIG funding is used to support the activities of the BLS LMI programs.
▸ A continued MOU with Salisbury University to maintain, update and expand the Workforce Dashboard.
▸ OWIP is an enhanced member of the LMI Institute. This provides staff access to online training and more.
▸ WIG funded travel and accommodations to the Geographic Solutions annual workforce technology conference. This conference allowed staff to and learn of new enhancements coming to the MWE.
▸ The LMI Director and Projections Economist travel every year to attend the PMP conference. This conference hosts training sessions on improvements and updated requirements to the employment projections software suite.
▸ Our Chief Economist traveled to the 2019 Leadership Washington County graduation with MD Labor's Acting Secretary to give a presentation on the current state of Washington County's economic development.
▸ DataZoa automates data tables used on our websites for our end users and used internally to assist in publication creation.
▸ Clicdata, a business intelligence tool used by staff to create several dashboards, is hosted on the OWIP website.

Recommendations to ETA for changes and improvements to WIGS Requirements

MD Labor's OWIP benefits significantly from funding provided by ETA. While the TEGL associated with the annual report provide the state detailed direction for the annual performance report, there are a few recommendations that could improve future TEGLs.

The listing of core deliverables and activities is very helpful. A detailed explanation of all core deliverables and activities would be even more helpful, as the TEGLs are at times inconsistent with its description of core requirements. For example, the deliverables for the WID, employment projections, and annual economic analysis and other reports include detailed explanations of what is required; however, customer consultations, activities to meet customer needs, and license requirements lack the same detail. More detail would aid the states in completing the annual report to the approval of ETA.

Another recommendation to ETA would be to host an annual or biennial LMI conference. This conference would allow LMI staff across the U.S. to meet, network, and learn best practices. In addition, staff could review and address any updates to the TEGL associated with the WIG report for the upcoming program year.

With the aim to continue providing excellent customer service by delivering LMI, OWIP recommends that ETA maintain its commitment to supply and increase WIG funding to Maryland.

Brief Overview of the Required Training

Throughout the program year 2018, OWIP provided employee development through LMI training. Our goal is for attendees to gain a robust understanding and use of workforce labor market data. Also, participants learn where to locate the many sources of labor market data. Below are some examples of training provided by LMI staff.

- LMI staff provided training to Pressley Ridge's youth workforce development team. The staff at Pressley Ridge had questions on determining which industries and occupations to target for their clientele. Additionally, they were directed to resources for finding hot jobs and labor market data for youth.
- LMI training was provided based on focus questions supplied by the Baltimore City's Mayor's Office of Employment Development (MOED). Their questions were directed towards various LMI data sources to improve their workflows. The training involved helping MOED staff gain a better understanding of LMI data and its uses.
- The Upper Shore LWDA invited LMI staff for training at Chesapeake Community College. Attendees wanted to learn best practices and learn where to locate LMI data from reliable sources. Also, they wanted to know how to keep a repository of LMI data.
- OWIP hosted a webinar to 150 invitees covering the economic state of Maryland. Attendees learned how to find LMI data on the MWE along with a hands-on demonstration of OWIP's most asked LMI questions. Webinar coordinators sent a recording to attendees to retain and share with their teams.
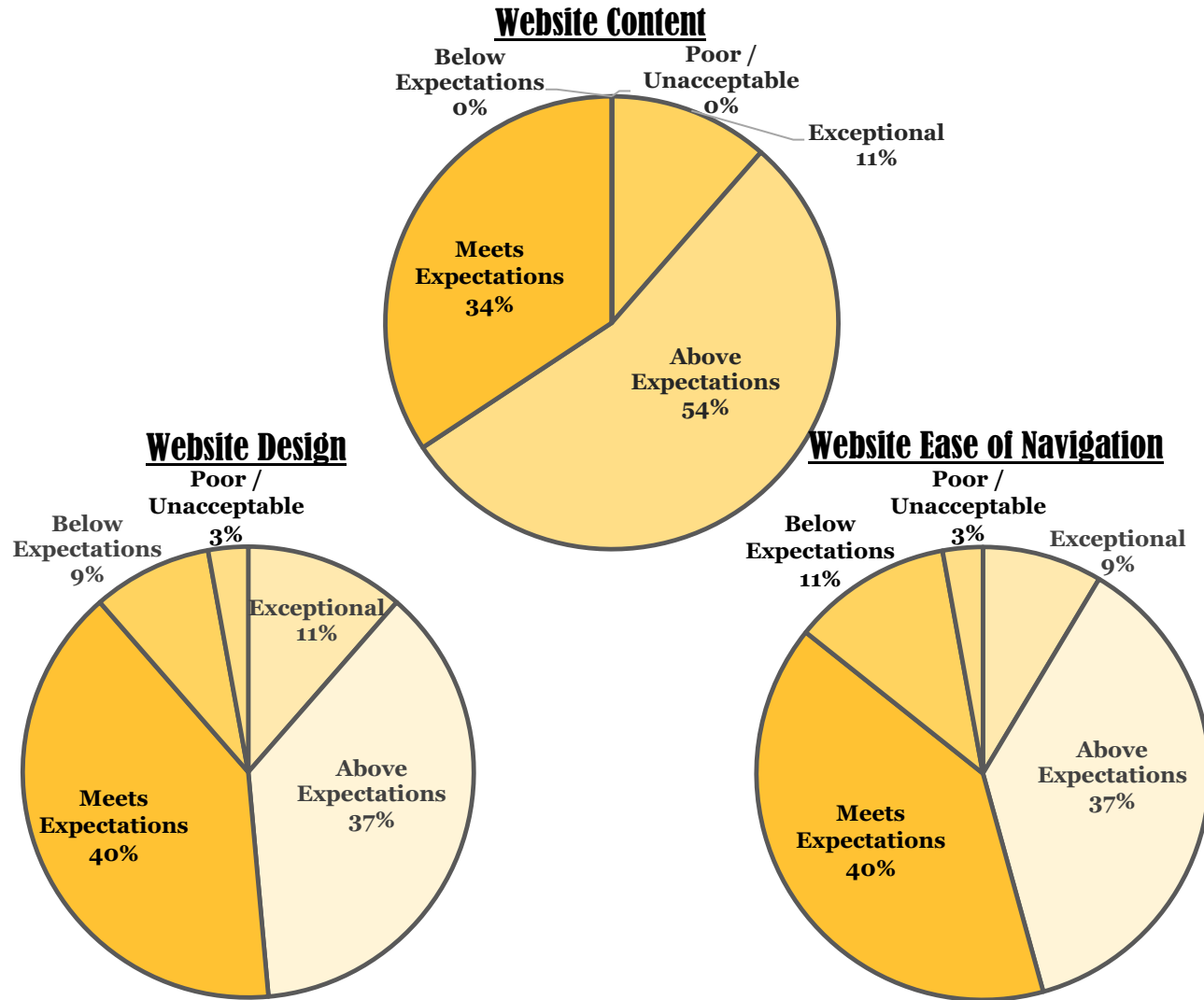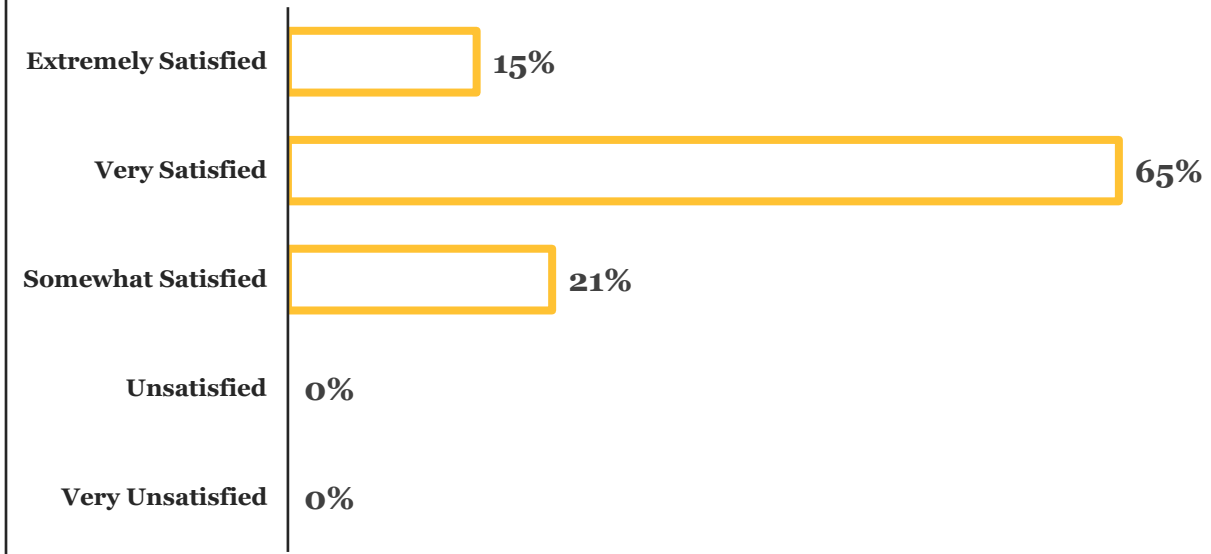
Appendix

Web Metrics: Five Major Data Products

Data Program	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019
LAUS	661	336	684	917	786	550	843	752	808	744	745	660
CES	253	160	350	526	455	287	351	384	370	288	328	268
OES	1,756	782	1,386	1,850	2,206	1,882	2,116	2,475	4,335	1,266	1,137	1,582
QCEW	839	521	979	1,544	1,450	922	838	927	961	720	705	668
Projections	692	423	700	825	674	496	536	581	719	612	643	569

Web Stats: Maryland Workforce Exchange
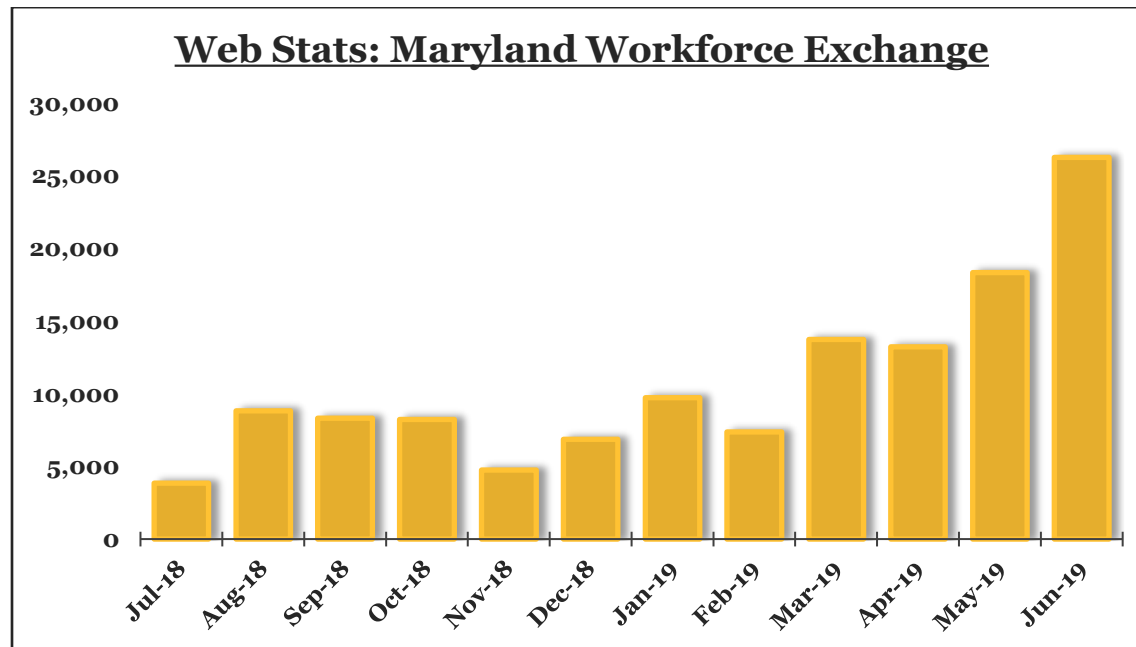
Survey Question: Please take a moment to rate the Content, Design, and Ease of Navigation of the labor market website.

Website Content

Below Expectations 0%
Poor / Unacceptable 0%
Exceptional 11%
Meets Expectations 34%
Above Expectations 54%

Website Design

Poor / Unacceptable 3%
Below Expectations 9%
Exceptional 11%
Meets Expectations 40%
Above Expectations 37%

Website Ease of Navigation

Poor / Unacceptable 3%
Below Expectations 11%
Exceptional 9%
Meets Expectations 40%
Above Expectations 37%

Overall Satisfaction with LMI Website

Category	Percentage
Extremely Satisfied	15%
Very Satisfied	65%
Somewhat Satisfied	21%
Unsatisfied	0%
Very Unsatisfied	0%

Website Statistics: Publications

Publication	Percentage
LMI Team	3%
LMI Cheat Sheet	3%
Spotlight on Cybersecurity	2%
Economic Analysis	2%
Hot Jobs	3%
Coommuting Patterns	9%
Local Area Reference Guide	1%
County Fact Sheets	39%
Occupational Outlook	11%
Program Information Sheets	3%
Monthy Labor Review	18%
Areas of Substantial Unemp.	1%
Who's Working in MD	1%
Other Publications	4%
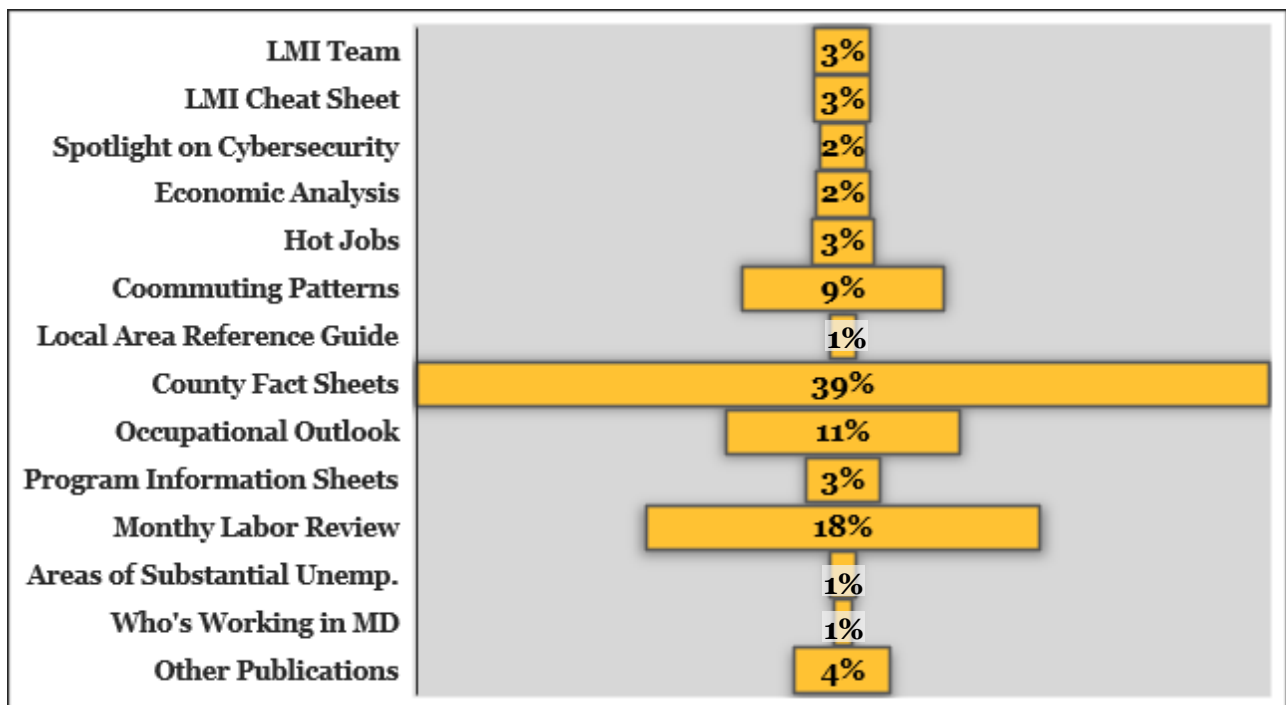
Grant Product Attribution and Intellectual Property Rights

For questions or assistance with Labor Market Data, you can reach us at one of the following:

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